INSTRUCTION MANUAL

SONANCE MERLOT® MR/SSMR/MSQ IN-CEILING SPEAKERS

SONANCE®

Introduction

Thank you for purchasing Sonance Merlot® in-ceiling speakers. When properly installed your new speakers will give you years of entertainment pleasure. This manual covers these Merlot speaker models: 422MR, 421MR, 422MSQ and 421SSMR.

SAFETY WARNING:

THESE SPEAKERS HAVE FASTMOUNT® TABS THAT PREVENT THE SPEAKER FROM FALLING OUT OF THE MOUNTING HOLE DURING THE INSTALLATION PROCESS.

THE EDGES OF THE FASTMOUNT TABS ARE VERY SHARP. USE CAUTION WHEN HANDLING THE SPEAKER.

Box Contents

Sonance Merlot MR and MSQ speaker boxes contain (2) Merlot speakers, (2) paint plugs (installed on the fronts of the speakers), (2) paintable grilles and (1) mounting cutout template.

Sonance Merlot SSMR speaker boxes contain (1) Merlot speaker, (1) plastic paint plug (installed on the front of the speaker), (1) paintable grille and (1) mounting cutout template.

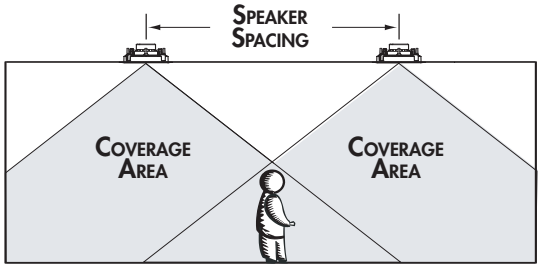
Speaker Placement

Distributed Audio Placement (Mono signal)

All Sonance Merlot MR, MSQ and SSMR-series speaker models provide excellent coverage in distributed audio systems from a wide variety of installation locations.

Sonance Merlot 421SSMR Single Stereo Technology® speakers reproduce both stereo channels from a single location, and are ideal for use in hallways, bathrooms, closets, or in any location where a pair of stereo speakers would be impractical.

The table and illustration in *Figure 1* show how far apart the speakers can be placed at various ceiling heights while still providing good coverage for all listeners.



SPEAKER SPACING FOR A DISTRIBUTED AUDIO SYSTEM		
CEILING HEIGHT	**STANDING LISTENER**	**SEATED LISTENER**
8′ CEILING	**5.7′** APART	**9.5′** APART
10′ CEILING	**9.7′** APART	**13.5′** APART
12′ CEILING	**13.7′** APART	**17.5′** APART
14′ CEILING	**17.7′** APART	**21.5′** APART

Figure 1: Distributed Audio Speaker Spacing

Home Theater Speaker Placement

Left, Center & Right Speakers (see *Figure 2*)

- Place the left, center and right speakers from 1 foot to 2 feet in front of the video screen, from 6 feet to 10 feet apart, with the center channel speaker as close to midway between the left and right speakers as possible.
- The main listening position should be between 4 and 10 feet away from the speakers.

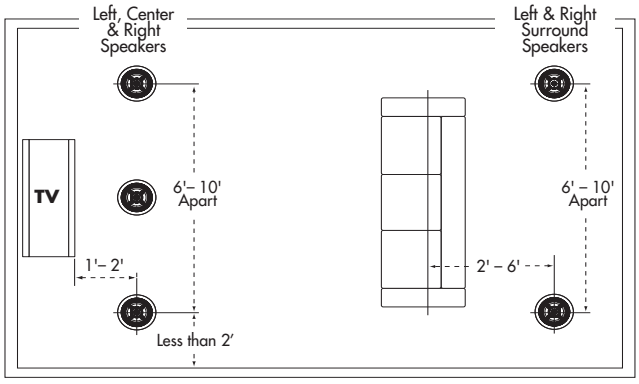


Figure 2: 5.1-Channel Home Theater Speaker Placement

Surround Speakers — 5.1-Channel System (see *Figure 2*)

- Locate the left and right surround speakers on the ceiling between 2 feet and 6 feet behind the listening position. The speakers should be between 6 feet and 10 feet apart.

Surround Speakers — 7.1-Channel System (see *Figure 3*)

- **Left & Right Surround Speakers:** Place the left and right surround speakers directly to the sides of the listening position, between 6 feet and 10 feet apart.
- **Surround Back Speakers:** Place the surround back speakers between 2 feet and 6 feet behind the listening position. The surround back speakers should be closer together than the left and right surround speakers — between 3 feet and 6 feet apart.

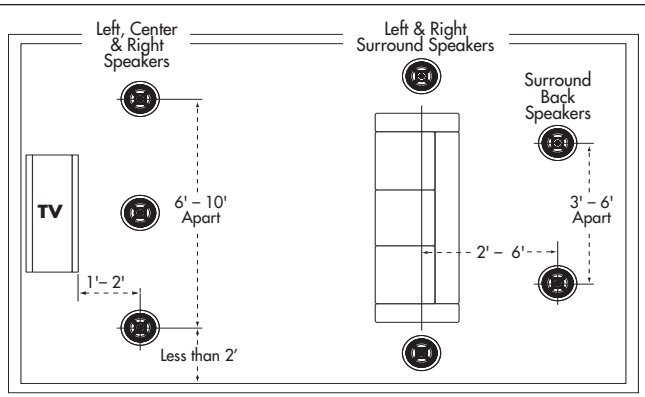


Figure 3: 7.1-Channel Home Theater Speaker Placement

Stereo Placement (2-Channel)

- Place the left and right speakers anywhere from 6 feet to 10 feet apart, with the main listening position as close to midway between the speakers as possible.
- In most cases pivoting the woofer of each speaker directly towards the main listening position will help maximize the stereo soundstage.

Use the Left and Right speaker placement in *Figures 2* and *3* (on page 1) as a guide.

Before Installation: Retrofit

1. Determine the location for the speaker (see *Speaker Placement* on page 1).
2. Perform an obstruction survey to be certain that there are no studs, conduit, pipes, heating ducts, pocket doors or air returns in the ceiling cavity that will interfere with the speaker.
3. The cutout for all Merlot MR, MSQ and SSMR speakers is 5 7/8" (149mm) in diameter. There also must be at least 3½" (89mm) depth within the ceiling cavity for the speaker.
4. Position the included cutout template where the speaker is to be located and pencil an outline on the ceiling.
   - If you are unsure about obstructions, drill a small hole in the center of the outline and insert a coat hanger wire into the hole to feel-around for possible obstructions.
5. Cut the mounting hole using a keyhole or drywall saw, and run the speaker wires from the mounting hole to the amplifier location.
   - Consult local building codes before running speaker wires through ceilings.

Installation

Sonance Merlot speakers feature exclusive FastMount® tabs and an integral RotoLock® mounting system for quick mounting directly into existing ceilings.

WARNING: THE EDGES OF THE FASTMOUNT TABS ARE VERY SHARP. USE CAUTION WHEN HANDLING THE SPEAKER.

1. Remove the paint plug from the speaker.
2. Run speaker wire from each speaker to the amplifier location.
3. Strip ¼" – ½" of insulation from each speaker lead. Twist the strands or tin the exposed wire with solder to ensure that there are no stray strands. (Stray strands that touch each other can cause a short-circuit that can damage the amplifier.)
4. The speaker's connector posts are spring-loaded. Push the top of each connector post down to open the connector and insert the exposed wires into the holes in the posts.
   - The speaker's positive post is labeled with a red dot; the negative post is labeled with a black dot. Double-check that you connected amplifier "+" to speaker "+" and amplifier "–" to speaker "–".
5. Make sure all the RotoLock clamps are in the full clockwise position so that they are tucked within the mounting hole's border. Insert the speaker into the hole in the ceiling (*Figure 4*). The RotoLock system can accommodate a maximum ceiling material thickness of 1¼".
   - The FastMount tabs will prevent the speaker from falling out of the mounting hole, allowing the installer to let go of the speaker to pick-up tools or other items (*Figure 5*).

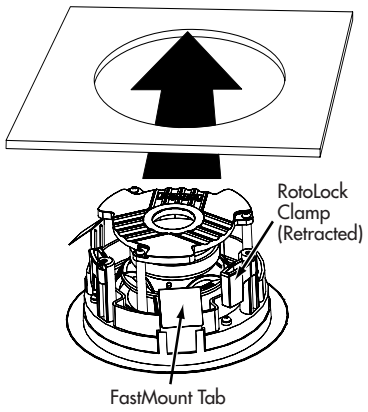


Figure 4: Inserting the Speaker Into the Mounting Hole

Note: The FastMount tabs are designed for one-time use only. If the speaker is removed from the mounting hole the FastMount tabs will disconnect and remain inside the ceiling.

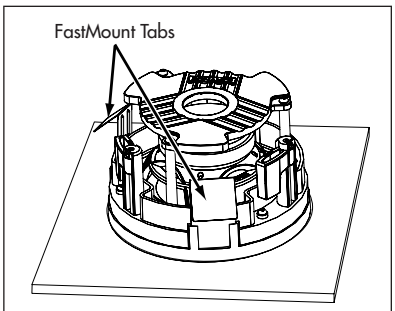


Figure 5:
FastMount Tabs

6. Tighten the four screws on the front of the speaker baffle. The RotoLock clamps will automatically rotate into position and begin clamping the speaker (*Figure 6*).
   - When you notice resistance on the screws the speaker has been clamped successfully.

IMPORTANT:
Always use low-torque settings; NEVER over-tighten.

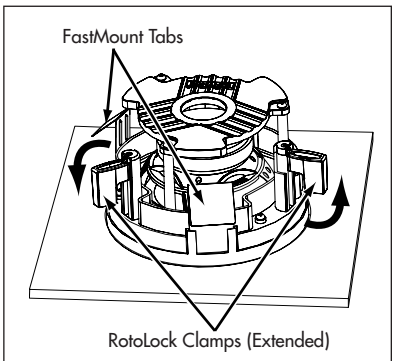


Figure 6:
Tightening the RotoLock Clamps

Note: The speaker flange is designed to flex and conform to any small imperfections in the ceiling surface. Do not tighten the screws so much so that the flange bows-out.

7. Attach the grille after the speaker has been installed. Insert about half of the grille into the groove at the edge of the speaker. Gently fit the remaining half of the grille by working around the speaker, fitting the grille into the groove as you go.

Note: You can adjust the torque applied to the RotoLock screws to achieve a proper grille fit.

Painting The Speakers

All Sonance Symphony speakers come from the factory fitted with a plastic 'paint plug' that protects the speaker drivers while the mounting flange is being painted.

Paint the grille separately from the speaker. Before painting, carefully remove the under-grille cloth. It is held in place with a light tacking glue that makes it easy to remove. Spray the grilles with thinned paint (5 parts thinner to 1 part paint), being careful not to plug the holes. Too heavy a coat of paint on the grille will adversely affect the sound of the speaker. Once the grilles and flange are painted and dry, replace the under-grille cloth, remove the paint plug from the mounting flange and install the grille.

Speaker Adjustments

Pivoting Tweeter

The Merlot 422MR speaker has a pivoting tweeter that allows you to direct sound towards or away from the listening area, depending on how the speakers are being used:

- If you're using the speakers in stereo or as the front left/center/right speakers in a home theater, pivot the tweeter directly towards the listening area. This will help the sound from the speakers blend into a solid soundstage even if the speakers are widely separated.
- If you're using the speakers as surround channel speakers in a home theater, you can create a more diffuse, spacious surround effect by pivoting the tweeters towards a wall or window, away from the listeners.

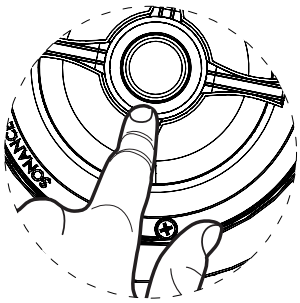


Figure 7:
Pivoting the Tweeter

To Pivot the Tweeter:

Apply light pressure to the plastic ring around the outside edge of the tweeter dome, as shown in *Figure 7*. Take care not to touch or apply pressure to the tweeter dome itself.

Specifications

422MR

Tweeter:	¾" (19mm) silk dome, pivoting
Woofer:	4½" (114mm) Black polypropylene cone with a rubber surround
Frequency Response:	60Hz – 20kHz ±3dB
Impedance:	8 ohms nominal; 6 ohms minimum
Power Handling:	5 watts minimum; 60 watts maximum
Sensitivity:	90dB (2.83V/1 meter)
Grille Material:	Perforated aluminum
Dimensions (Dia x D):	6 7/8" x 3½" (175mm x 89mm)
Cutout Diameter:	5 7/8" (149mm)
Shipping Weight :	6 lbs (2.8kg) per pair

421MR

Tweeter:	¾" (19mm) silk dome
Woofer:	4½" (114mm) Black polypropylene cone with a rubber surround
Frequency Response:	70Hz – 20kHz ±3dB
Impedance:	8 ohms nominal: 6 ohms minimum
Power Handling:	5 watts minimum; 50 watts maximum
Sensitivity:	89dB (2.83V/1 meter)
Grille Material:	Perforated aluminum
Dimensions (Dia x D):	6 7/8" x 3½" (175mm x 89mm)
Cutout Diameter:	5 7/8" (149mm)
Shipping Weight:	6 lbs (2.8kg) per pair

422MSQ

Tweeter:	¾" (19mm) silk dome, pivoting
Woofer:	4½" (114mm) Black polypropylene cone with a rubber surround
Frequency Response:	60Hz – 20kHz ±3dB
Impedance:	8 ohms nominal; 6 ohms minimum
Power Handling:	5 watts minimum; 60 watts maximum
Sensitivity:	90dB (2.83V/1 meter)
Grille Material:	Perforated aluminum
Dimensions (W x H x D):	6½" x 6½" 3½" (165mm x 165mm x 89mm)
Cutout Diameter:	5 7/8" (149mm)
Shipping Weight :	6 lbs (2.8kg) per pair

421SSMR

Tweeter:	Two ¾" (19mm) silk domes
Woofer:	4½" (114mm) Black polypropylene cone with a rubber surround, dual voice coil
Frequency Response:	70Hz – 20kHz ±3dB
Impedance:	8 ohms nominal: 6 ohms minimum
Power Handling:	5 watts minimum; 50 watts maximum
Sensitivity:	89dB (2.83V/1 meter)
Grille Material:	Perforated aluminum
Dimensions (Dia x D):	6 7/8" x 3½" (175mm x 89mm)
Cutout Diameter:	5 7/8" (149mm)
Shipping Weight:	3 lbs (1.4kg) each

Technical Assistance and Service

If you any have questions about the operation or installation of this product, please call our Technical Assistance Department on any business day at (800) 582-0772 or (949) 492-7777; from 7 a.m. to 5 p.m., PST.

If your speakers should need repair or service, contact your Sonance Authorized Dealer for help, or use the following procedure:

1. Prior to calling, note the product's model number, serial number, purchase date, and the name and address of the dealer where you purchased the product.
2. Contact our Technical Assistance Department at the above number(s) and describe the problem the unit is experiencing. If applicable, they will issue a Return Authorization Number.

IMPORTANT: YOU MUST HAVE PRIOR AUTHORIZATION TO RETURN YOUR SPEAKER TO SONANCE!

3. If you're directed to return the unit to Sonance for repair, pack the unit in its original shipping carton. If needed, you can obtain replacement packaging from us for a small charge. Note: it is best if you place the box into an additional outer "overcarton" before shipment to minimize a chance of theft in shipment. Please include a copy of the original bill of sale inside the package.
4. Contact a package delivery company such as United Parcel Service or Federal Express to arrange prepaid (not collect) shipping. Do not use the U.S. Postal Service.

IMPORTANT: Freight collect shipments will be refused.

5. **Write the Return Authorization Number on the outside of the shipping carton.**
6. Ship the packaged unit to:

Quality Assurance Department
Sonance
212 Avenida Fabricante
San Clemente, CA 92672-7531

Limited Lifetime Warranty Coverage (U.S. Only)

Sonance warrants to the original retail purchaser only that this Sonance product will be free from defects in materials and workmanship, provided the speaker was purchased from a Sonance Authorized Dealer.

Defective products must be shipped, together with proof of purchase, prepaid insured to the Authorized Sonance Dealer from whom they were purchased, or to the Sonance factory at the address listed on this instruction manual. Freight collect shipments will be refused. It is preferable to ship this product in the original shipping container to lessen the chance of transit damage. In any case, the risk or loss or damage in transit is to be borne by the purchaser. If upon examination at the factory or Authorized Sonance Dealer it is determined that the unit was defective in materials or workmanship at any time during this warranty period, Sonance or the Authorized Sonance Dealer will, at its option, repair or replace this product at no additional charge, except as set forth below. If this model is no longer available and can not be repaired effectively, Sonance, at is sole option, may replace the unit with a current model of equal or grater value. In some cases where a new model is substituted, a modification to the mounting surface may be required. If mounting surface modification is required, Sonance assumes no responsibility or liability for such modification. All replaced parts and product become the property of Sonance. Products replaced or repaired under this warranty will be returned to the original retail purchaser, within a reasonable time, freight prepaid.

This Warranty does not include service or parts to repair damage caused by accident, disaster, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage inputs in excess of the rated maximum of the unit, or service, repair or modification of the product which has not been authorized or approved by Sonance. This Warranty also excludes normal cosmetic deterioration caused by environmental conditions. This Warranty will be void if the Serial Number on the product has been removed, tampered-with or defaced. This Warranty is in lieu of all other expressed warranties. If the product is defective in materials or workmanship as warranted above, the purchaser's sole remedy shall be repair or replacement as provided above. In no event will Sonance be liable for any incidental or consequential damages arising out of the use or inability to use the product, even if Sonance or an Authorized Sonance Dealer has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply. All implied warranties on the product are limited to the duration of this expressed Warranty. Some states do not allow limitation on the length of an implied warranty. If the original retail purchaser resides in such a state, this limitation does not apply.

Exclusions And Limitations

The warranty set forth above is in lieu of all other warranties, express or implied, of merchantability, fitness for a particular purpose, or otherwise. The warranty is limited to Sonance products registered herein and specifically excludes any damage to loudspeakers and other allied or associated equipment which may result for any reason from use with this product. Sonance shall, in no event, be liable for incidental or consequential damages arising from any breach of this warranty or otherwise. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

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Due to continuous product improvement, all features and specifications are subject to change without notice.
For the latest Sonance product specification information visit our website: www.sonance.com

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